WHAT IS CLAIMED IS:

1. A system for use with an exhaustible power source, a power switch, and an energy consuming load, said system comprising:

(a) a microchip having at least a first input, said first input transmits a signal to said microchip when said load has been activated or deactivated, and when in use with said power source and said load, said input not forming a serial link in a transfer circuit between the power source and the load;

(b) said power switch configured to be connected to said power source and to said load, the power switch configured to control the on/off switching through the control of the energy flow from said power source to said load; and

(c) said microchip further configured to control at least two functions selected from the group consisting of:

- a find-in-the-dark location indicator that is active when the load is not activated and when the power source is not being charged;

- a power source level indicator that is active when the load is not activated, and is active when the power source is not being charged; and

- an automatic delayed shut-off function with said first input acting as an activation/deactivation interface and said microchip controlling the power switch to shut off after a predetermined period of time in response

to the receipt of an activation signal received through said first input.

2. The system of claim 1, wherein a further function controlled by the microchip comprises at least one function selected from the group consisting of an oscillating power function, an average load power reduction function, and/or a code sequence switching or flashing function.

3. The system of claim 2 wherein the microchip recognizes the selection of a specific function by a combination of at least two parameters selected from the group consisting of the time duration of activation signals, the time duration between activation signals, and the number of activation signals at said first input.

4. The system of claim 2 wherein the microchip recognizes the selection of a specific function by a combination of all three parameters selected from the group consisting of the time duration of activation signals, the time duration between activation signals, and the number of activation signals at said first input.

5. The system of claim 2 wherein the microchip and power switch are part of a single integrated circuit.

6. The system of claim 1 wherein said microchip is not a microcontroller or a microprocessor.

7. The system of claim 1 wherein the power source level indicator indicates when the load is not energized and is combined with the find-in-the-dark indicator.

8. The system of claim 4 wherein the microchip and power switch are part of a single integrated circuit.

9. The system of claim 1 wherein said load is a light generating element.

10. The system of claim 1 wherein said load is an electric motor.

11. The system of claim 2 wherein said load is an electric motor.

12. The system of claim 1 wherein said load is a radio.

13. The system of claim 1 wherein the microchip also controls the gradual switching "on" of the power to the load and/or the gradual switching "off" of the power to the load.

14. The system of claim 2 wherein the system is adapted for use in a flashlight.

15. The system of claim 1 wherein said microchip is configured to control the following two functions:

- a flashing find-in-the-dark location indicator that is active when the load is not activated and when the power source is not being charged; and
- an automatic delayed shut-off function with said first input acting as an activation/deactivation interface and said microchip controlling said power switch to shut off after a predetermined period of time in response to the receipt of an activation signal received through said first input.

16. The system of claim 1 wherein said microchip is configured to control the following two functions:

- a flashing find-in-the-dark location indicator that is active when the load is not activated and when the power source is not being charged; and
- a power source level indicator that is active when the load is or is not activated, and is active at times when the power source is not being charged.

17. The system of claim 1 wherein said microchip is configured to control the following two functions:

- a power source level indicator that is active when the load is not activated, and is active at times when the power source is not being charged; and
- an automatic delayed shut-off function with said first input acting as an activation/deactivation interface and said microchip controlling said power switch to shut off after a predetermined period of time in response to the receipt of an activation signal received through said first input.

18. The system of claim 1 wherein said system controls all three functions selected from said group.

19. A system for use with an exhaustible power source, a power switch, and a light generating load, said system comprising:

a microchip having at least one signal input, said input transmits a signal to said microchip when a signal switch connected to said input has been activated or deactivated, said input and signal switch connected thereto being an activation/deactivation interface, and when in use with said power source and said load, said signal switch not forming a serial link in an energy transfer circuit between the power source and the load; wherein said microchip is configured (i) to be connected to a power switch, said power switch configured to be connected to said power source and to said load, the microchip and the power switch configured to control the on/off switching through the control of the energy flow from said power source to said load in response to activation and deactivation signals received through said input, (ii) to control a power adjustment of the energy flow from the power source to the load, and (iii) to control a low energy consuming find-in-the-dark indicator that is active when said power source is not being charged, and said load is not activated.

20. The system of claim 19 wherein the system is adapted for use in a portable lighting product.

21. The system of claim 19 wherein the system is adapted for use in a portable lighting product and the microchip is further configured to control an automatic delayed shut-off.

22. The system of claim 19 wherein said microchip has only one signal input.

23. The system of claim 19 wherein the power adjustment comprises a gradual switching "on" or a gradual switching "off" of the light generating load.

24. The system of claim 19 wherein the microchip is further configured to accept commands from another controller that contains at least an address.

25. The system of claim 24 wherein said command is transferred via a power line to the microchip.

26. The system of claim 19 wherein the system further comprises an energy storage device that supplies energy to said microchip when said power switch is conducting, and wherein said power switch is not conducting, said storage device is recharged.

27. The system of claim 19 wherein the signal switch connected to said input comprises a low current switch.

28. The system of claim 19 wherein said power adjustment is in response to a command received via the signal switch input.

29. The system of claim 19 wherein said microchip is further configured to control a power level indicator that is active when the power source is not being charged.

30. A system for use with an exhaustible power source, a power switch, and a light generating load, said system comprising:

a microchip having at least one signal input, said input transmits a signal to said microchip when a signal switch connected to said input has been activated or deactivated, said input and signal switch connected thereto being an activation/deactivation interface, and when in use with said power source and said load, said signal switch not forming a serial link in an energy transfer circuit between the power source and the load; wherein said microchip is configured (i) to be connected to a power switch, said power switch configured to be connected to said power source and to said load, the microchip and the power switch configured to control the on/off switching through the control of the energy flow from said power source to said load in response to activation and deactivation signals received through said input, (ii) to control a power adjustment of the energy flow from the power source to the load, and (iii) to control an automatic delayed shut-off function in response to an activation signal.

31. The system of claim 30 wherein the system is adapted for use in a portable lighting product.

32. The system of claim 30 wherein the system is adapted for use in a portable lighting product and the microchip is further configured to control a low energy consuming find-in-the-dark indicator that is active when said power source is not being charged and said load is not activated.

33. The system of claim 30 wherein said microchip has only one signal input.

34. The system of claim 30 wherein the power adjustment comprises a gradual switching "on" or a gradual switching "off" of the light generating load.

35. The system of claim 30 wherein the microchip is further configured to accept commands from another controller that contains at least an address.

36. The system of claim 35 wherein said command is transferred via a power line to the microchip.

37. The system of claim 30 wherein the system further comprises an energy storage device that supplies energy to said microchip when said power switch is conducting, and wherein said power switch is not conducting, said storage device is recharged.

38. The system of claim 30 wherein the signal switch connected to said input comprises a low current switch.

39. The system of claim 30 wherein said power adjustment is in response to a command received via the signal switch input.

40. The system of claim 30 wherein said microchip is further configured to control a power level indicator that is active when the power source is not being charged.

41. A flashlight comprising:

a light source,

contacts for connecting the light source to at least one exhaustible power source,

a power switch in communication with an electrical circuit connecting the contacts and said light source, said power switch controlling the flow of power from said power source to said light source,

a signal switch, said signal switch not forming a serial link in the circuit connecting said power source and said light source, and

a microchip, said microchip in communication with said power switch and said signal switch, wherein said microchip comprises at least one signal input connected to said signal switch, said input transmits a signal to said microchip when said signal switch connected to said input has been activated and/or deactivated, said microchip and power switch controlling the on/off switching of the light source in response to signals received through said input, said microchip configured to also control the power switch to achieve an adjustment of the power transmitted from said power source to the light source, said microchip further configured to control an automatic delayed shut-off function in response to an activation of the signal switch.

42. The flashlight of claim 41 wherein said microchip is further configured to control an oscillating power function.

43. The flashlight of claim 42 wherein activation of said oscillating power function results in the light source sequencing on and off to communicate S.O.S.